UNITED STATES
ENVIRONMENTAL PROTECTION
AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
LAND AND EMERGENCY
MANAGEMENT

JUN 12 2019

Hester de Jong
Senior Inspector
Inspectie Leefomgeving & Transport (ILT)
Domein Afval, Industrie en Bedrijven
Vergunningverlening Afval, Industrie en Bedrijven / EVOA
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Dear Mr. de Jong,

Thank you for Inspectie Leefomgeving & Transport's (ILT) February 26, 2019 response. Also, thank you for forwarding the Chemours Netherlands response to USEPA's questions regarding our Notice of Temporary Objection to notification NL608356. As requested, enclosed please find the response USEPA received from The Chemours Company, Fayetteville, North Carolina (Chemours Company) to our questions regarding the proposed import for your review.

USEPA has reviewed the information submitted by both the Chemours Netherlands and the Chemours Company and requests responses to a few additional follow-up questions for both ILT and Chemours Netherlands in order to complete our review of the proposed import shipments in NL608356. Please note that the temporary objection to Notification NL608356 remains in place while this review continues in accordance with Chapter II, Paragraph (D)(2) of the OECD Council Decision C(2001)107/FINAL, as amended.

USEPA would appreciate your response to our questions regarding the Dutch hazardous waste export process, questions numbered 1-2 below. We would also ask that you direct Chemours Netherlands to submit responses to questions numbered 3-7 below. Please forward the responses to us at USEPA. For ease, the responses should be emailed to me at kreisler.eva@epa.gov and RCRAnotifications@epa.gov, simultaneously.

For ILT response:

1. Does the export permit issued by your office (the Netherlands) for export notices NL608171 and NL603976, require that shipments depart by the end date of the consent period or does

the permit require that all shipments must be completed, i.e. received by the end date of the consent period?

2. Does your office have concerns about the listing of multiple hazardous wastes under a single representative waste in an export notice? What analysis or testing must be done on the wastes by the exporter? From the U.S. perspective, it would be appropriate to list a single waste stream in the notice to represent multiple wastes if the wastes have substantially similar physical properties such that their individual status under European Union, or OECD, or U.S. waste regulations would be the same. It would also be appropriate to list a single waste stream in the notice if the wastes are physically combined into one waste prior to export. We are evaluating whether listing a single waste in the notice is appropriate when considering a wide range of physical states (i.e., liquid, viscous/paste, sludgy) and characteristics. For your reference, under U.S. hazardous waste regulations implementing the Resource Conservation and Recovery Act (RCRA), an aqueous waste is a characteristically corrosive hazardous waste if it has a pH less than or equal to 2 or greater than or equal to 12.5, as determined by a pH meter using Method 9040C in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846.

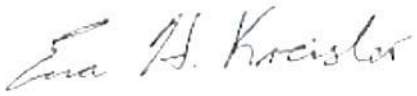
For Chemours Netherlands response:

3. With respect to data listed in "Overview of Recovered GenX Transports – NL603976 and NL608171.xls", please provide:
   a. The dates and locations where the lots (specified by "Lotnumber" or "lotnr" in the document) were sampled and/or otherwise examined, the testing method(s) used to determine characteristics such as weight, pH, and the percentage of recoverable material (surfactant concentration) present in each shipment. If possible, provide a process flow diagram identifying the locations of generation and sampling. Describe any treatment performed on the exported wastes prior to shipment.
   b. Confirmation that a reported lot corresponds to an Intermediate Bulk Container (IBC) from the movement document. The number of reported lots (40) for shipments 1-4 equal the number of IBCs (40) listed on the movement documents, and the number of reported lots (65) for shipments 5-9 equals the number of IBCs (65) listed on the movement documents.
   c. What the "weight inc. IBC (kg)" is for lot number 1705990006.
   d. Please identify which of the reported lot numbers correspond to GX-902, and which reported lot numbers correspond to K902NLREC.
4. Please provide the weight(s) of the IBC unit(s) used for each shipment made under NL608171. Indicate whether Chemours Netherlands BV reuses the same IBC units shipped for recovery and return between Chemours Netherlands BV and Chemours Fayetteville, and whether and when the IBC units are rinsed or replaced prior to reuse.
5. Please confirm that the previously provided movement documents indicating confirmation of receipt and recovery of shipments made under NL608171 and NL603976 are complete and reflect all shipments made under NL608171 and NL603976. If recovery of shipments 7 and 8 under NL608171 has been completed, please send updated documents for those shipments.
6. Please provide copies of all movement documentation "(international manifest") detailing the characteristics, transport, receipt and reclamation for all shipments made between

2014 and 2016 under previous export notices NL603825, NL603450, and NL603282. Please also include routine composition analysis results of waste transported under previous export notices, and information documenting confirmation of receipt and recovery of each shipment.

5. Please specify how Chemours Netherlands BV determines the percentage of recoverable material present in shipments made for recovery at Chemours Fayetteville, as specified in Appendix 5 (Origin) of the hazardous waste export notification NL608356. Please also provide additional information to describe the methods used to determine amounts of FRD 902 ultimately disposed of and reclaimed, the estimated value of material for which a use exists, the cost of use, and the cost of disposal of waste, as specified in Appendix 7 (Treatment Process) of the hazardous waste export notification NL608356.
6. Please identify and provide copies of all international transport and reclamation contracts or equivalent arrangements applicable to the shipment of FRD-902 NL-Recovered under previous export notices.
7. The Chemours Fayetteville facility informed the U.S. EPA that it relied solely on testing done by the Chemours Netherlands BV facility to characterize the incoming wastes. Please provide the communications from your facility to the Chemours Fayetteville facility transmitting such sample analyses associated with any outgoing shipments of FRD-902 NL-Recovered since 2014.

Sincerely,



Eva H. Kreisler
International Branch
Materials Recovery and Waste Management Division
Office of Resource Conservation and Recovery

enclosure

Chemours

SANITIZED - DOES NOT CONTAIN CONFIDENTIAL BUSINESS INFORMATION

March 26, 2019

BY EMAIL

Eva Kreisler, Senior Attorney
International Branch
Office of Resource Conservation and Recovery
kreisler.eva@epa.gov
RCRAnotifications@epa.gov

Re: EC Notice ID: NL608356
EPA Notice ID: 020936/111/18

Dear Ms. Kreisler,

This letter is in response to your March 3, 2018 request for information related to the reclamation of material from Chemours's Dordrecht Works at Chemours's Fayetteville Works (Questions 7 - 16 in your letter). The Human Environment and Transport Inspectorate (ILT) of the Netherlands submitted to EPA Chemours's Dordrecht Works responses to Questions 1 - 6 on February 18, 2019.

We are currently collecting and holding at Dordrecht Works the material to be reclaimed at Fayetteville Works.

EPA Question 7: *Please provide results for any sampling conducted on the GenX compound waste streams after receipt at the Fayetteville Works facility. Please specify how the amount of surfactant available for reclamation is determined for each imported shipment of GenX compound waste streams. Additionally, please indicate the amount of GenX compound waste stream ultimately disposed after reclamation.*

Chemours's Response:

a. No sampling is conducted on the GenX material after receipt at the Fayetteville Works facility. The facility uses data provided by Dordrecht Works.

b. The amount of surfactant available for reclamation is determined by testing done at the Dordrecht Works facility. The specific gravity of the liquid material is measured at Dordrecht Works and the percent surfactant is calculated based on the specific gravity.

c. As received, the GenX material is nominally 10-15% surfactant. Of that material, approximately 89% is ultimately incinerated and the balance of the surfactant is recovered for reuse.

EPA Question 8: *Please indicate how waste generated from the reclamation of GenX compound waste streams is managed and ultimately disposed of. In your response, provide specific information on the "upper layer" after acidification, the "distillation residue," and any other wastes generated.*

Chemours's Response:

a. Liquid waste acid is an in-process solution of aqueous sulfuric acid that contains a minimal amount (< 1,000 ppm) of GenX and would be considered an "upper layer" material in the vessel. It is collected in tank trailers and transported for incineration.

b. The "distillation residue" consists of material left after the distillation process. This material is transferred to the tank trailer which is sent off-site for incineration.

c. Rinse water generated during the cleaning of the reclaimed transport container is collected in a process sump and transferred to the process scrubber. Excess water in the process scrubber is transferred to a waste water trailer that is sent off-site for incineration.

EPA Question 9: *Please provide results for any sampling conducted on the GenX compound waste streams after reclamation. Please provide updated information regarding the disposition/transportation of the wastes generated from the GenX manufacturing process and the reclamation of GenX compound waste streams. The Notice of Intent states that the disposal destination is the Clean Harbors incinerator facility in El Dorado, Arkansas. Other documentation indicates that all wastewaters at the Fayetteville Works facility are being sent to the Texas Molecular facility in Deer Park, Texas for deep well injection. Please clarify.*

Chemours's Response:

a. The waste streams from the GenX manufacturing process and the reclamation GenX process are incinerated, and no individual sampling of the GenX compound waste streams are conducted after the reclamation process.

b. Waste acid from PPA is sent to incinerators at Clean Harbors in El Dorado, Arkansas, and Veolia in Port Arthur, Texas.

c. Waste water from PPA is sent to incinerators at Clean Harbors in El Dorado, Arkansas; Heritage in East Liverpool, Ohio; and Veolia in Port Arthur, Texas.

d. Wastes from PPA have never been disposed of in deep well injection.

EPA Question 10: *Please indicate whether the GenX compound waste streams are mixed or combined at the Fayetteville Works facility prior to reclamation. If so, identify each individual waste stream mixed prior to reclamation of the GenX compound, and provide a narrative description of the process for combining the wastes, including the manner and duration of storage of both the separate and combined wastes. If combined during the reclamation, please describe where in the process the waste streams are combined.*

Chemours's Response:

a. The GenX materials for reclamation from Dordrecht Works are not mixed or combined with any other stream prior to processing. Once processing begins, multiple Dordrecht Works containers are processed simultaneously. The contents of individual containers are first acid washed and the resulting surfactant is transferred to the Wash Tank. The surfactant layers from multiple Dordrecht Works containers are collected in the Wash Tank and processed further.

EPA Question 11: *Please describe the process by which GenX compound waste streams are reclaimed at the Fayetteville Works facility. Please indicate where in the Fayetteville Works facility process the GenX compound waste streams are reclaimed, whether the reclamation process is separate from the manufacturing process, and whether the reclamation process is done in batches or is a continuous process.*

Chemours's Response:

a. This process description is designated Confidential Business Information.

[redacted]

CONTAINS CONFIDENTIAL BUSINESS INFORMATION

[redacted]

b. [redacted]

c. [redacted]

EPA Question 12: *Please provide a description of any changes made to the GenX manufacturing process to prepare the GenX compounds for reclamation and handle the removal of unwanted salts.*

Chemours's Response:

a. The process used for making GenX from virgin raw materials and reclaimed GenX material in generally the same, differing in two small respects. First, they may require a different number of wash steps, depending on the amount of fluoride contained in the initial solution. The waste from this acid wash is collected and sent offsite for incineration. Second, the production of GenX from virgin raw materials requires a distillation step that is not performed on reclaimed GenX.

EPA Question 13: *Please submit documentation which compares how wastes generated from the reclamation of GenX compound waste streams are similar or different from the waste generated from the manufacturing of GenX using virgin raw materials.*

Chemours's Response:

a. Waste generated by the two processes is essentially identical. The differences are a result of differences in the quality of the GenX being reclaimed. Both processes generate a waste acid and a wastewater stream., and the waste characterization, handling, and disposal are the same.

EPA Question 14: *Please identify the location where wastes generated from the reclamation of GenX compound waste streams is containerized for disposal (the notice references 55% of the original spent material).*

Chemours's Response:

a. The waste generated from the reclamation of the GenX stream is transferred directly from the scrubber or reclamation process into waste trailers. The trailer fill stations are an integral part of the PPA facility.

EPA Question 15: *Please identify all underground piping at the Fayetteville Works facility used, currently or previously, to convey the GenX compound waste streams prior to containerization.*

Chemours's Response:

a. GenX compound waste streams at the PPA facility have never been in underground piping systems. There are not, nor have there ever been, underground piping systems at the PPA facility.

EPA Question 16: *Please describe how the GenX compound waste streams are shipped from the U.S. port of entry to the Fayetteville Works facility. Specify whether this waste is shipped under a bill of lading or hazardous waste manifest.*

Chemours's Response:

a. The GenX compound containers to be reclaimed are shipped in sea trains (overseas shipping containers). The sea train containers are transferred by truck from the port of entry to the Fayetteville Works PPA facility.

b. The GenX compound containers are shipped under a bill of lading.

Please feel free to contact me if you have any questions.

Sincerely

Brian D Long
Plant Manager

CC:
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